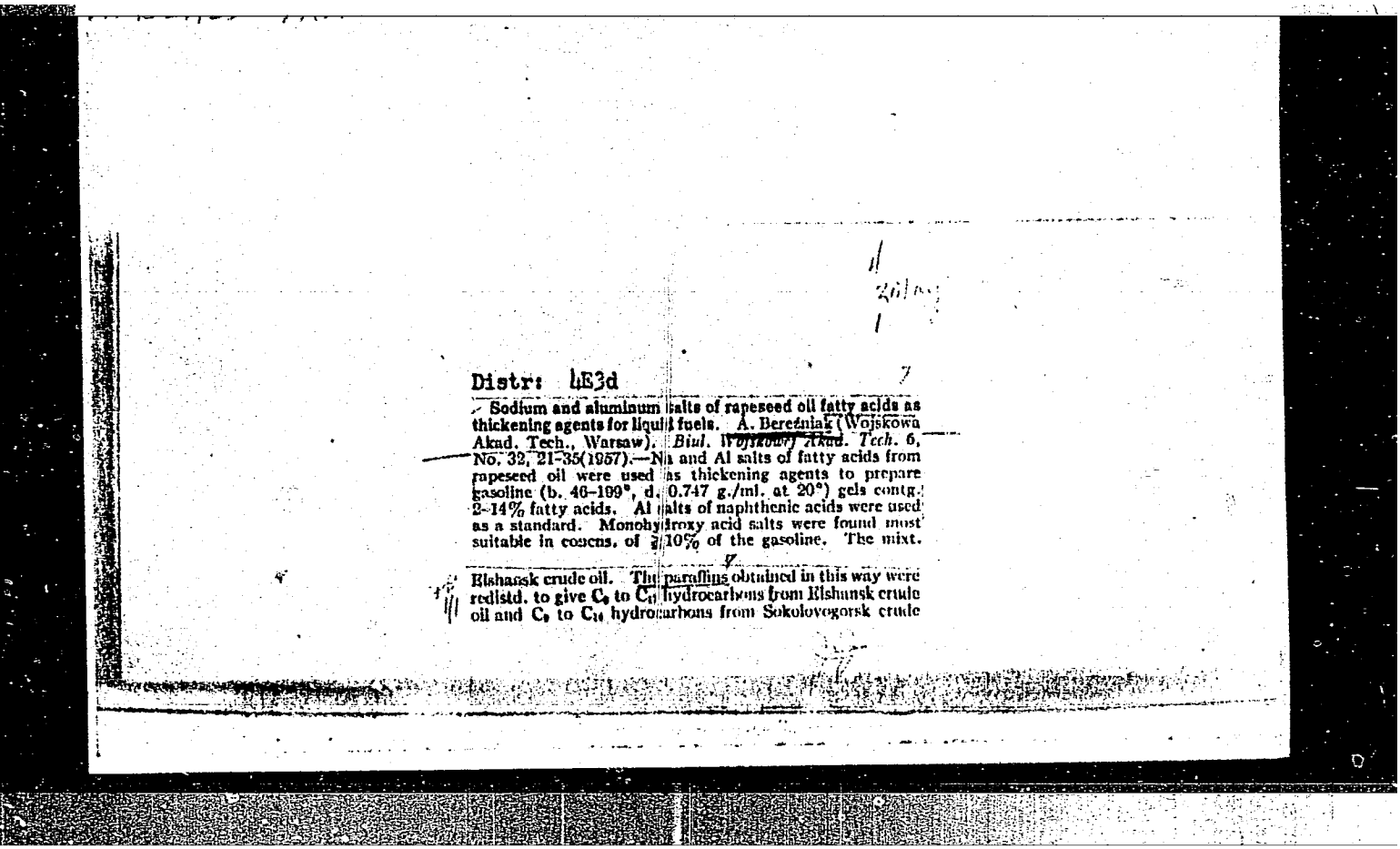

Distr: 4E3d

Sodium and aluminum salts of rapeseed oil fatty acids as thickening agents for liquid fuels. A. Bereźniak (Wojskowa Akad. Tech., Warsaw). *Biul. Wojskowej Akad. Tech.* 6, No. 32, 21-35(1957).—Na and Al salts of fatty acids from rapeseed oil were used as thickening agents to prepare gasoline (b. 46–199°, d. 0.747 g./ml. at 20°) gels contg. 2–14% fatty acids. Al salts of naphthenic acids were used as a standard. Monohydroxy acid salts were found most suitable in concns. of 3–10% of the gasoline. The mixt.

Elshansk crude oil. The paraffins obtained in this way were redistd. to give C_9 to C_{11} hydrocarbons from Elshansk crude oil and C_9 to C_{14} hydrocarbons from Sokolovogorsk crude

A. BERECNIAK

The effect of organic lead(II) and lead(IV) compounds on the behavior of [illegible] gasoline. A. Bereźniak and T. Zimoch. *Biul. Wojskowej Akad. Tech., Prace Chem.* 7, No. 38, 62-74(1958).—Two thickening agents, $AlOH(C_{18}H_{35}O_2)_2$ (*a*), and $AlOH(OCOR)_2$ (*b*), R being a naphthene group, were added in amts. of 8 and 4% to gasoline and the effect of org. Pb salts on the viscosity, adhesion, and ripening time of the gels was studied in tests ranging over 30–52 days. $Pb(OCOR)_2$ (I), $PbOH(OCOR)$ (II), $Pb(C_{18}H_{35}O_2)_2$ (III), $Pb(C_{18}H_{33}O_2)_2$ (IV), and $Pb(C_{17}H_{35}PO_4)_2$ (V) did not give gels with gasoline. I, 0.1%, added to *a* at 18°, reduced the ripening time by 75%; addn. of 0.4% I increased the fire point from 1120–30 to 1170–80°, and reduced the time of burning of 1 g. *a* by 10 sec. III, 0.1%; IV, 0.1%; V, 0.1% or $Pb(C_5H_5)_4$, 0.02–0.1%, added to *b*, shortened the ripening time by 50%, and increased the viscosity two-fold. II, 0.05%, added to *b* at −5° or 18°, showed that the effect of temp. on the rate of action of Pb(II) salts followed the van't Hoff rule. A viscosity of 0.6 poise was found to be the limiting value for the ripened gels contg. 2.5–2.8% *a* or *b*.

A. Szafran

L 13807-63

ACCESSION NR: AP3004308 S/0030/63/000/007/0077/0079

AUTHOR: Chernov, V. N.; Bereznikov, V. M.; Drevush, V. P.; Kolbasov, A. N.

TITLE: Automatic registration of the growth of microorganisms 44

SOURCE: AN SSSR. Vestnik, no. 7, 1963, 77-79

TOPIC TAGS: microorganism culture, growth registration, turbidimeter, photoelement, Geneva movement

ABSTRACT: A device for the continuous automatic registration of change in the rate of growth of microorganism cultures was developed for the purpose of monitoring the effects of additives (antibiotics, antimetabolites, etc.) to cultures. The device consists of a twelve-place cultivating carousel electrically synchronized with a turbidimeter (see Fig. 1 of Enclosure). Motion is imparted to twelve-

toring the effects of additives (antibiotics, antimetabolites, etc.) to cultures. The device consists of a twelve-place cultivating carousel electrically synchronized with a turbidimeter (see Fig. 1 of Enclosure). Motion is imparted to twelve-position Geneva-movement mechanism (1) by synchronous electric motor (2), which rotates carousel (3) with culture tubes (4) ($T_1 \ldots T_{10}$) and control diaphragms (E_v and E_n) within thermostatic chamber (5), whose preset temperature is maintained by automatic regulator (6). Each cycle of the Geneva movement places a culture tube (or one of the control diaphragms) in front of electric bulb (7), whose light,

Card 1/2

L 13807-63

ACCESSION NR: AP3004308

condensed by a lens (8), passes through adjustable diaphragm (9), light filter (10), calibrated diaphragm (11), and a culture tube (4) which reaches photoelement (12). The signal from the photoelement varies with the change of biomass or density within the culture tube. The device allows for the stirring and aeration of cultures by means of fluoroplastically coated magnets (13) within the culture tubes which are rotated by horseshoe magnets ($M_1 \ldots M_{12}$) powered by induction electric motor (14), whose speed is controlled by regulation (15). Signals from photoelement (12) proceed through turbidimeter input (16) to automatic registration device (17) via summator (18), which also receives a feedback voltage from the rechord of the registration device. The growth of cultures is recorded in separate curves ($K_1 \ldots K_{10}$) on perforated paper tape in different colored inks. The recording head is synchronized with the Geneva movement of the carousel by means of synchronizer (19). The use of a single metering channel assures high reliability. The absolute amount of the biomass can be obtained by comparison with the maximum and minimum density control diaphragms (E_v and E_n). Power source (20) provides stabilized voltage current for the metering channel. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 15Aug63 ENCL: 01

SUB CODE: AM NO REF SOV: 000 OTHER: 000

Card 2/2

CHERNOV, V.N.; BEREZNIKOV, V.M.; BEREZIN, B.V.

Automation of sterile dosing of liquid media. Vest. AN SSSR 33 no.11:80-81 N '63. (MIRA 17:1)

1. Institut mikrobiologii AN SSSR.

BEREZNIKOV, V. V. Cand Tech Sci -- (diss) "Study of the Influence of the Geometry of the Internal Surface of a Bearing on the Wear of the Shaft Neck-Bearing Pair in the D-35 Engine.". Kaunas,1957. 26 pp with illustrations, 1 sheet of illustrations 22 cm. (Min of Agriculture USSR, Lithuanian Agricultural Academy), 150 copies (KL, 27-57, 106)

OK

BEREZNIKOV, V.V., kand.tekhn.nauk; MAKUSHKIN, A.P., inzh.

Application of plastic coatings on machinery components in a fluidized bed. Trakt.i sel'khozmash. no.8:39-42 Ag '62. (MIRA 15:8)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii traktorov i sel'skokhozyaystvennykh mashin.
(Protective coatings) (Plastics)

BEREZNIKOV, V.V., kand.tekhn.nauk; LAVRENT'YEV, G.A., inzh.

Determination of the initial gap in the linking of a shaft and a plastic slide bearing. Mekh. i elek. sots. sel'khoz. 20 no.1:45 '62. (MIRA 15:2)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka.

(Bearings (Machinery))

35680

S/032/62/028/004/024/026
B116/B104

15.8400 15.8360

AUTHORS: Bereznikov, V. V., and Lavrent'yev, G. A.

TITLE: Attachment of thermocouples to parts of polymeric materials

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 4, 1962, 506

TEXT: A special device (Fig.) for attaching thermocouples to polycaprolactam (caprone) slide bearings is described. The needle 1 (0.5 - 0.4 mm diameter) is heated by the spiral 2 connected with a ТР-17 (TR-17) transformer. The thermocouple 3 is connected over the terminals 4 and 5 with a ЛАТР-1 (LATR-1) transformer. The hot junction of thermocouple 3 is introduced in the notches of needle 1. The temperature of the needle and of the thermocouple wires should be slightly higher than the melting temperature of caprone. Spring 6 serves for tightening the thermocouple wires during adjusting and heating. After heating the needle and wires, the bearing 7, to which the thermocouple is to be attached, is approached to the hot junction. Under the action of its own weight, the bearing 7 shifts downward until touching the stage 8. The hot junction of the thermocouple is adjusted to the required depth of the bearing. The heating of the needle and of the thermocouple is interrupted, and the wires are

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Attachment of thermocouples...

removed from the terminals. The needle is heated and removed from the bearing 7. The depth of adjustment depends on the table height which is controlled by means of the nuts 9. The device described was used for attaching a copper-constantan thermocouple to slide bearings of 48 mm diameter, 3 mm wall thickness, and 40 mm width. The distance between the depth of adjustment and the sliding surface was 0.1 mm. At sliding velocities up to 2 m/sec, caprone starts melting at ~125 - 130°C. At a sliding velocity of >2 m/sec and a load of >75 kg/cm^2, a jumplike increase of the bearing temperature was observed as from 100 - 105°C, and the bearings became useless. Maximum working temperature of caprone bearings is 100 - 110°C. There is 1 figure.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka (All-Union Scientific Research Technological Institute for the Repair and Utilization of Tractors and Machinery)

L 13524-63 EWP(j)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pc-4 RM/JD/WB

ACCESSION NR: AP3002601 S/0122/63/000/006/0038/0041 63

AUTHOR: Bereznikov, V.V. (Candidate of technical sciences); Makushkin, A.P. (Engineer)

TITLE: Influence of temperature and grain size on the quality of polycaprolactam metal coatings produced in a pseudo-fluidized bed

SOURCE: Vestnik mashinostroyeniya, no. 6, 1963, 38-41

TOPIC TAGS: coating, polycaprolactam, machine parts, grain size, temperature

ABSTRACT: Experiments were made to determine the best method for coating machine parts with polycaprolactam. This coating helps to recondition worn parts and improve their durability. Two factors were studied in particular: the preheating temperature of the machine part to be coated and the grain size of the polycaprolactam powder used as coating. The thickness of the coating varied between 0.9 and 1.1 mm. The powder was sprayed over the preheated machine part and a jet of air at 18-20C and 40-50% moisture content was blown over it. The heat caused the melting of the layer. The grain size

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L 13524-63

ACCESSION NR: AP3002601

of the powder used in various experiments ranged between 60 and 370 Microns. The temperature of machine parts varied between 220 and 380C. Tests of adhesion, bending, tension, hardness, and durability were made on coated specimens. It is concluded that the best temperature of the machine parts at the moment of coating is 280-300C and the best grain size of polycaprolactam powder is 140-260 Microns. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 15Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 007 OTHER: 001

Card 2/2

BEREZNIKOV, V.V., kand. tekhn. nauk; MAKUSHKIN, A.P., insh.

Effect of some engineering factors on the properties of polycaprolactam coatings obtained in a fluidized bed. Vest. mashinostr. 43 no.6:38-41 Je '63. (MIRA 16:7)

(Protective coatings)

PEYVE, Ya.V.; PETERBURGSKIY, A.V., doktor sel'khoz. nauk, prof.; GAR, K.A., kand. sel'khoz. nauk; GOLYSHIN, N.M., kand. biol. nauk; KOROTKIKH, G.I., kand. sel'khoz. nauk; CHESALIN, G.A., kand.sel'khoz.nauk; RAKITIN, Yu.V., doktor biol. nauk; ZEZYULINSKIY, V.M., kand. sel'khoz.nauk; DEVYATKIN, A.I., kand. sel'khoz. nauk; VENEDIKTOV, A.M., kand.sel'khoz. nauk; TARANOV, M.G., kand. biol. nauk; BORISOVA, L.G.; BEREZNIKOV, V.V., kand. tekhn.nauk; KONDRATENKO, R.V., st. nauchn.sotr.; BORISOV, F.B., st. nauchn.sotr.

[Chemistry in agriculture] Khimiia v sel'skom khoziaistve. Moskva, Kolos, 1964. 381 p. (MIRA 17:9)

1. Chlen-korrespondent AN SSSR (for Peyve). 2. Nachal'nik laboratorii Nauchno-issledovatel'skogo instituta plastmass (for Borisova). 3. Nauchno-issledovatel'skiy institut plastmass (for Kondratenko, Borisov).

MALAKHOV, Zosim Stepanovich; BEREZNIKOV, Viktor Vasil'yevich; KHURSIN, Leonid Aleksandrovich; KARNAUKHOV, G.T., red.; KARASEV, A.Ye., red.

[Ship towing] Buksirovka korablei. Moskva, Voenizdat, 1964. 110 p. (MIRA 17:9)

L 32629-66 EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) JD/HM

ACC NR: AP6011269 SOURCE CODE: UR/0413/66/000/006/0124/0124

INVENTOR: Assorov, A. V.; Bereznikov, Yu. I.; Lotsmanov, S. N.

28
B

ORG: none

TITLE: Packing for use in contact-reactive brazing. Class 49, No. 180071

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 124

TOPIC TAGS: brazing, metal brazing

ABSTRACT: This Author Certificate introduces a packing for use in contact-reactive brazing which is placed between the metals to be brazed. The packing contains a reactive metal which takes part in the formation of the liquid phase. To improve the quality of the brazed joint by reducing the liquid phase formation rate, 70—97% of the packing is of nonreactive metal which takes no part in the formation of the liquid phase.

[LD]

SUB CODE: 11/ SUBM DATE: 22Jan64

Card 1/1 vmb UDC: 621.791.367.04

L 34840-66 EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM/JG

ACC NR: AP6021485 SOURCE CODE: UR/0413/66/000/011/0128/0128

37
B

INVENTOR: Bereznikov, Yu. I.

ORG: none

TITLE: Alloy for brazing titanium. Class 49, No. 182486

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 128

TOPIC TAGS: titanium, titanium foil, titanium brazing, brazing alloy, manganese containing alloy, lithium containing alloy, silver containing alloy, magnesium containing alloy, calcium containing alloy

ABSTRACT: This Author Certificate introduces an alloy for brazing titanium which contains 2—15% manganese, 0.2—0.3% lithium and the remainder silver. To ensure brazing of titanium foils up to 0.3 mm thick, 2—15% magnesium and 0.2—2% calcium are added to the alloy. [ND]

SUB CODE: 11/ SUBM DATE: 18Jul64/ ATD PRESS: 5032

Card 1/1 UDC: 621.791.36

ARTYUKHOV, V.G.; YEGOROV, A.S.; BEREZNIKOVA, D.S.

Movement of nitrogen compounds in the column during the rectification of alcohols produced from molasses. Izv. vys. ucheb. zav.; pishch. tekh. no.6:31-33 '63.
(MIRA 17:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut spirtovoy i likerovodochnoy promyshlennosti, laboratoriya khimii i rektifikatsii spirta.

ARTYUKHOV, V.G.; BEREZNIKOVA, D.S.; YEGOROV, A.S.; KLIMENKO, K.V.

Losses of fusel oil in the products of yeast separation. Spirt. prom. 29 no.6:36-37 '63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut spirtovoy i likero-vodochnoy promyshlennosti.
(Distillation) (Fusel oils)

ARTYUKHOV, V.G.; BEREZNIKOVA, D.S.

Distribution of nitrogen compounds in the rectification column during the rectification of alcohols obtained from molasses. Trudy Ukr.NIISP no.8:60-63 '63. (MIRA 17:3)

ARTYUKHOV, V.G.; YEGOROV, A.S.; MAL'TSEV, P.M.; BEREZNIKOVA, D.S.

Studying the balance of fusel oil in the production of higher alcohols from molasses beer. Trudy UkrNIISP no.9:51-58 '64.
(MIRA 17:10)

ARTYUKHOV, V.G.; YEGOROV, A.S.; BEREZNIKOVA, D.S.

Effect of the reflux ratio on the distribution of alcohol impurities in a rectifying column. Ferm. i spirt. prom. 30 no.5:16-19 '64.
(MIRA 17:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut spirtovoy i likero-vodochnoy promyshlennosti.

IPPOLITOVA, Ye.A.; SIMANOV, Yu.P.; KOVBA, L.M.; POLUNINA, G.P.; BEREZNIKOVA, I.A.

Chemistry of the uranates of some divalent elements. Radiokhimiia 1 no.6:660-664 '59. (MIRA 13:4)
(Uranates)

86157

S/076/60/034/008/033/039/XX
B015/B063

21.3100 (1138, 1496, 1565)

AUTHORS: Leonidov, V. Ya., Rezukhina, T. N., and Bereznikova, I. A.

TITLE: Specific Heat of Calcium and Barium Uranates (VI) at High Temperatures

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8, pp. 1862-1865

TEXT: The present work follows a series of experiments on the thermodynamic properties of the chromates, molybdates, and tungstates of divalent metals (Refs. 1-4). Its principal purpose was to compare the thermodynamic properties of these compounds with those of the uranates of divalent metals. The mixing method was used to measure the specific heat of $CaUO_4$ and $BaUO_4$ with a compact calorimeter. The measurements were made between 588° and 1134°K, the lower temperature being 293°K. A detailed description of measurement and calorimeter is given in M. M. Popov's manual (Ref. 8) and in a paper by L. A. Zharkova and T. N. Rezukhina (Ref. 2). The sample was heated in a Pt ampoule placed in a vertical furnace above the calorimeter. The specific heat was calculated from the

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difference of the quantities of heat introduced into the calorimeter with a full and with an empty ampoule. The mean values obtained are listed in Table 2. The specific heat of $BaUO_4$ in the above temperature range was found to be a linear function of temperature. In the case of $CaUO_4$ this function is linear only up to 1022°K, changes abruptly between 1022° and 1027°K, and becomes again linear. In this range there occurs a phase transition with a heat of 220 cal/mole. Finally, equations are given for the calculation of the mean and the actual specific heat for the temperature range considered: $CaUO_4$ (I) (below the point of transition): $\bar{c}_p = 0.08555 + 1.636 \cdot 10^{-5}T$, $\overline{C}_p = 29.27 + 5.60 \cdot 10^{-3}T$; $CaUO_4$ (II) (above the point of transition): $\bar{c}_p = 0.08435 + 1.839 \cdot 10^{-5}T$, $\overline{C}_p = 28.86 + 6.29 \cdot 10^{-3}T$; $BaUO_4$: $\bar{c}_p = 0.06929 + 1.094 \cdot 10^{-5}T$, $\overline{C}_p = 30.45 + 4.81 \cdot 10^{-3}T$; and $CaUO_4$ (I): $c_p = 0.08075 + 3.272 \cdot 10^{-5}T$, $C_p = 27.63 + 11.19 \cdot 10^{-5}T$, $CaUO_4$ (II): $c_p = 0.07895 + 3.678 \cdot 10^{-5}T$, $C_p = 27.01 + 12.58 \cdot 10^{-3}T$;

86157

Specific Heat of Calcium and Barium Uranates (VI) at High Temperatures S/076/60/034/008/033/039/XX B015/B063

$BaUO_4$: $c_p = 0.06608 + 2.189 \cdot 10^{-5}T$; C_p 29.04 + $9.62 \cdot 10^{-3}T$. Professor S. M. Skuratov is thanked for advice. There are 1 figure, 2 tables, and 9 references: 7 Soviet and 2 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: December 20, 1958

Tab. 2

Таблица 2

Средняя удельная теплоемкость моноуранатов кальция и бария

1 Количество ураната в ампуле, г	2 Температурный интервал измер. теплоемкости, °К	3 Подъем температуры калориметра,°, (сопротивление платинового термометра, Ω)	4 Тепло, внесенное солью в калориметр, кал	Средняя уд. теплоемкость ураната	
				5 из опыта	по уравнению
		$CaUO_4$			
4,9463	588,63—293,07	0,05605	139,22	0,09523	0,09518
	784.57—293.00	0.0963	239.13	0.09835	0.09838

Card 3/4

	884,08—293,00	0,1176	292,11	0,09991	0,10001	5
	984,94—293,00	0,1400	347,75	0,10160	0,10166	
	1008,97—293,06	0,1455	361,41	0,10206	0,10205	
	1022,08—293,04	0,14865	369,23	0,10239	0,10227	
	1027,45—293,03	0,1510	375,07	0,10325	0,10324	
	1034,25—293,02	0,1526	379,04	0,10338	0,10336	
	1084,00—293,01	0,16415	407,73	0,10421	0,10428	
	1133,47—293,06	0,1761	437,41	0,10522	0,10519	
			$BaUO_4$			
6,5605	588,70—293,26	0,0504	147,47	0,07575	0,07573	
	684,85—293,48	0,07975	198,09	0,07681	0,07679	
	784,43—293,12	0,1015	252,12	0,07787	0,07788	
	884,08—293,09	0,1237	307,26	0,07890	0,07897	
	984,89—293,02	0,14695	365,01	0,08006	0,08007	
	1083,66—293,07	0,1703	423,01	0,08120	0,08115	

Text to the table: Table 2 - Mean Specific Heat of Calcium and Barium Monouranates; 1 - Amount of uranate in the ampoule expressed in g; 2 - Temperature range of specific heat measurement expressed in °K; 3 - Temperature rise of the calorimeter (resistance of the Pt thermometer expressed in ohms); 4 - Quantity of heat introduced into the calorimeter with the salt, expressed in cal; 5 - Mean specific heat of uranate; 6 - Measured; 7 - Calculated

Card 4/4

S/081/62/000/010/019/085
B138/B101

AUTHORS: Ippolitova, Ye. A., Bereznikova, I. A., Pechurova, N. I., Danilov, V. P.

TITLE: Composition studies of calcium, strontium and barium uranate precipitations, formed at different pH values of the solution

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1962, 93, abstract 10V17 (Sb. "Issled. v obl. khimii urana". M., Mosk. un-t, 1961, 173 - 181)

TEXT: The composition of Ca, Sr and Ba uranates formed at different solution pH values has been investigated. By means of X-ray diffraction analysis it was found that only a few hydrolysed mono-uranate and di-uranate of Ca could be precipitated from the solution. When sediments got at pH 9.5 - 6.6 were calcined a solid solution was formed on U_3O_8 base. Chemical analysis of the precipitated Sr uranates obtained at pH values corresponding to inflection points on the potentiometric titration curves showed the formation of mono-, di-, tri- and hexa-uranates of Sr. Most of them were heavily hydrolysed. The composition of the precipitated uranates depends

Composition studies of calcium, ...

on the order in which the reagent solutions are mixed. If a $UO_2(NO_3)_2$ solution is poured into an alkaline solution, orange-colored and partially hydrolysed mono-uranates (Sr) or di-uranates (Ca, Ba) are formed. If the alkali is added to a $UO_2(NO_3)_2$ solution the precipitates are yellow and the more acid uranates are formed. The method of precipitating U in the form of the Ca uranate was checked by the action of the alkali in the presence of $CaCl_2$. Using radioactive isotopes Ca^{45} and Na^{24} it was found that if NaOH was introduced into the reaction mixture the Ca uranate is formed, the Na^+ ions being only adsorbed by the precipitate. In the presence of $CaCl_2$ the uranium is precipitated more fully. [Abstracter's note: Complete translation.]

Card 2/2

BEREZNIKOVA, I.A.

Precipitated calcium, strontium, and barium uranates. Vest. Mosk. un. Ser. 2: Khim. 20 no.2:44-46 Mr-Ap '65. (MIRA 18:7)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

BEREZNIKOVSKIY, D.

Modify the system of bonuses for workers of planning agencies. Fin. SSSR 18 no.4:61-63 Ap '57. (MLRA 10:6)

1. Nachal'nik operatsionnogo otdela pravleniya Sel'khozbanka.
(Bonus system)

BEREZNIKOVSKIY, S.F., kand. tekhn. nauk, dots. (Leningrad).

Current reaction in the quadrature circuit of an amplidyne armature. Elektrichestvo no.12:35-40 D '56. (MIRA 11:3)
(Rotating amplifiers)

BEREZNIKOVSKIY, S.F.

Vsesoyuznoye ob"yedinennoye soveshchaniye po avtomatizatsii proizvodstvennykh protsessov v mashinostroyenii i avtomatizirovannomu elektroprivodu v promyshlennosti. 3d, Moscow, 1959

Elektroprivod i avtomatizatsiya promyshlennykh ustanovok; trudy soveshchaniya (Electric Drive and Automation in Industrial Systems; Transactions of the Conference) Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sirotin, and M.G. Chilikin; Eds.: I.I. Sud, and E.P. Silayev; Tech. Eds.: K.P. Voronin, and G.Ye. Larionov.

PURPOSE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

COVERAGE: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third Joint All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Gosplan SSSR (State Planning Commission USSR), the GNTK SSSR, the Gosudarstvennyy Komitet po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Building) and the Natsional'nyy Komitet SSSR po avtomaticheskomu upravleniyu (USSR National Committee on Automatic Controls) and prepared by the Nauchno-tekhnicheskiy komitet po avtomatizirovannomu elektroprivodu (Scientific and Technical Committee on Automated Electric Drives), the MEI (Moscow Institute of Energetics), the VNIIEM, the IAT (Institute of Automation and Telemechanics) of the Academy of Sciences USSR, and the Komissiya po tekhnologii mashinostroyeniya Instituta mashinovedeniya AN SSSR (Commission on the Technology of Machine Building of the Institute of Science of Machines of the Academy of Sciences USSR). It was the purpose of the Editorial Board to arrange the reports in a way which would ensure a relatively systematic presentation of theoretical and practical problems relating to electric drives and automatic controls of industrial mechanisms used in various branches of industry. Basic problems of automated electric drive and their solution are outlined. The book also contains articles on electric machinery and means of automation. Considerable attention is paid to noncontact automatic control systems, including systems with semiconductor devices and magnetic amplifiers, and to computers intended both for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Reports already published in journals or official publications have been considerably abbreviated; those which have appeared in volume V of NII EP transactions or in the journal "Elektrichestvo" are marked with an asterisk. No personalities are mentioned. References accompany some of the papers.

PART I. GENERAL PROBLEMS CONCERNING THE THEORY AND PRACTICE OF ELECTRIC DRIVE AND AUTOMATION OF CONTROL

Balyarev, M.V., Candidate of Technical Sciences. Dynamic Properties of Control Systems for D-C Drives With Magnetic Amplifiers 146

Sigal', M.E., Engineer, and O.V. Slezhanovskiy, Candidate of Technical Sciences. Servosystems With Phase Measurement of the Mismatch Angle* 148

Krasovskiy, Ye.P., Docent, Candidate of Technical Sciences, and V.V. Lauer and A.G. Shapovalenko, Engineers. Control of D-C Generators Operating Under Variable Asymmetrical Polarity Conditions 152

Petelin, D.P., Candidate of Technical Sciences. Automatic Excitation Regulation of Synchronous Motors Operating Under Variable Load Conditions 153

Bereznikovskiy, S.F., Candidate of Technical Sciences. Static Error of Electric Machine Regulation With a Constant Control Signal 155

Voytekh, A.A., Engineer. Circuit of an Automatic Capacitor-Start Motor With the Use of a Differential Electromagnetic A-C Relay 158

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Osin, Ya.Ya., Engineer. Investigation of Electric Drive Systems With Continuous Positive Voltage Feedback 162

Mel'nikov, O.N., Engineer. Improving the Real Gain Factor of a Rotating Amplifier at Low Signals by Means of the Method of A-C Superimposition 163

Bogoyavlenskiy, V.N., Candidate of Technical Sciences. Electromechanical Transmission of Frequency Regulation 165

Suyskiy, P.A., Engineer. Selection of Squirrel-Cage Induction Motors for Cyclic Operating Conditions 167

Shevchenko, V.V., Candidate of Technical Sciences. Method of Thermal Parameters Applied to the Heating of Ventilated Squirrel-Cage Induction Machines 174

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BEREZNIKOVSKIY, Sergey Fedorovich, dots., kand. tekhn. nauk;
BESEKERSKIY, V.A., doktor tekhn.nauk, retsenzent;
VASIL'YEV, D.V., doktor tekhn. nauk, retsenzent;
BLAZHKIN, A.T., prof., red.; KVOCHKINA, G.P., red.

[Automatic regulation and control of electrical machines; some theory problems and elements of control systems] Avtomaticheskoe regulirovanie i upravlenie elektricheskimi mashinami; nekotorye voprosy teorii i elementy sistem upravleniia. Leningrad, Sudostroenie, 1964. 418 p.
(MIRA 17:9)

BEREZNIK, G.

SUBJECT: USSR/Apprentice Training 27-4-19/19

AUTHOR: Bereznik, G., Senior Inspector of the Sumy Oblast' Administration of Labor Reserves

TITLE: Methodology Course (Metodicheskiy seminar)

PERIODICAL: Professional'no - Tekhnicheskoye Obrazovaniye, April 1957, # 4 (143), rear cover (USSR)

ABSTRACT: The Sumy Labor Reserve District Administration held a 3-day course on methodical questions for the deputy school directors and senior instructors. A number of lectures were delivered on the conditions of methodical work prevailing in the schools, and measures of improvement were discussed. The participants visited the mechanization school Nr. 4 at Lebedinsk and attended lessons in laboratory and practical work on tractors and agricultural machinery.

There is 1 photo.

ASSOCIATION:
PRESENTED BY:
SUBMITTED:
AVAILABLE: At the Library of Congress
Card 1/1

DAUKNIS, V.I.; BEREZNIKOV, V.V.

Crankshaft quality in the D-35 engine. Avt. itrakt.prom no.10:29-30 O '56. (MIRA 10:1)

1. Fiziko-tekhnicheskiy institut Akademii Litovskoy SSR, Kaunasskiy remontnyy zavod.
(Cranks and crankshafts) (Tractors--Engines)

BereznikovA I.A.

21(8) 5(0)

AUTHOR: Lapitskiy, A.V. SOV/55-59-3-29/32

TITLE: The First All-Union Conference of Universities and Colleges on Radiochemistry

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, Nr 3, pp 221-223 (USSR)

ABSTRACT: This conference was convened by the initiative of the laboratoriya radiokhimii khimicheskogo fakul'teta MGU (Laboratory of Radiochemistry of the Department of Chemistry of Moscow State University) and was held in Moscow from April 20 to April 25, 1959. It was attended by professors, teachers, and scientific collaborators of 32 universities and colleges of the Soviet Union. In his opening address, An.N.Nesmeyanov, Doctor of Chemical Sciences, stressed the importance of radiochemistry. 30 lectures were delivered by members of Moscow State University: Laboratoriya yadernoy fiziki (Laboratory of Nuclear Physics): N.P.Rudenko, A.I.Sevast'yanov: Production of Beryllium-7 by the Reaction (T,2n); I.Stary, N.P.Rudenko: Production of Radioactive Isotopes by Extraction as β-Diketonates. Laboratoriya radiokhimii (Laboratory of Radiochemistry): An.N.

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Nesmeyanov, B.M. Korolev, L.A.Sazonov: Separation of Radioactive Isotopes in the Irradiation of Colloids; An.N.Nesmeyanov, Ye.A.Borisov, K.S.Filatov, V.Kondratenko, Chzhan Tszy-syan, K.Panek, B.Shukla: Secondary Reactions of the Recoil Atoms ^{80}Br and ^{82}Br in Methyl Bromides; B.G.Dzantiyev, I.M.Barkalov, V.V.Khrapov: Reactions of "Hot" Sulfur- and Nitrogen Atoms With Hydrocarbons; B.Z.Iofa, L.V.Bobrov, A.N.Ratov: The State of Radioactive Isotopes in Extremely Dilute Solutions; M.S. Merkulova, I.V.Melikhov: General Theory of the Coprecipitation of Radioactive Elements With Non-isomorphous Crystalline Precipitates; A.V.Lapitskiy, I.A.Savich, Chzhuan Ya-uy: Coprecipitation of Protactinium With Complex Compounds of Ti, Nb, and Ta; V.M.Fedoseyev, V.V.Ivanenkov, V.N.Bochkarev: Application of Radioactive Paper Chromatography"; K.B. Zaborenko, A.M.Babeshkin, M.S.Aul'chenko: Accumulation and Separation of Recoil Atoms on the Basis of the Example Ra^{224} and Ra^{228}; K.B.Zaborenko, A.M.Babeshkin, V.A.Beyevskaya, L.L.Melikhov: Application of the Emanation Method for the

Card 2/4

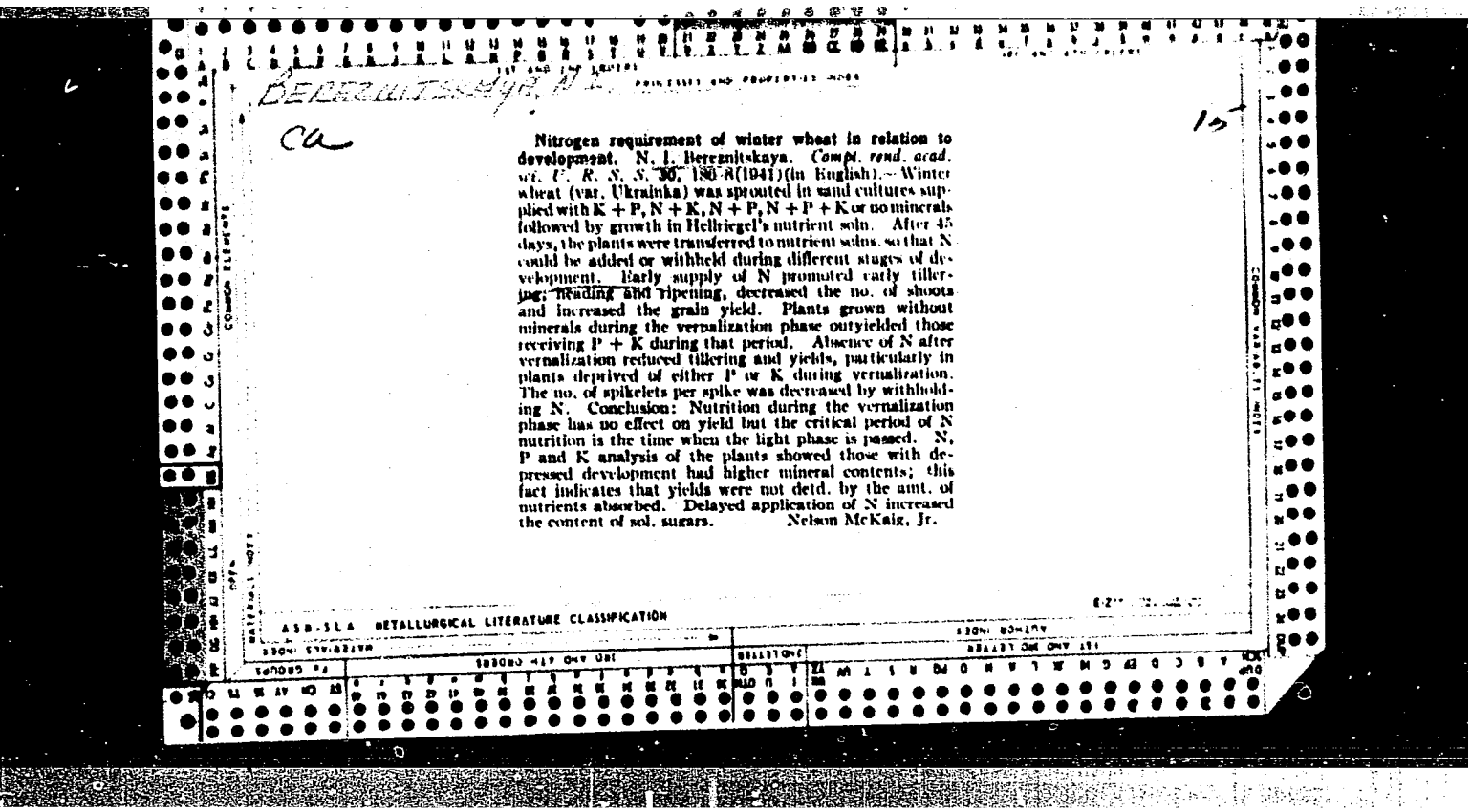
Investigation of the Transformation of Solids; V.I.Spitsyn, K.B.Zaborenko, A.M.Babeshkin, M.A.Radicheva: Transformation of Heteropoly-compounds; K.B.Zaborenko, A.M.Babeshkin, I.V. Kovalenko: Geochemistry of Radium; K.B.Zaborenko, V.I. Korobkov: Microanalytical Determination of Uranium by Means of Nuclear Emulsions. An.N.Nesmeyanov, De Dyk-Man: Partial Vapor Pressure of Co in Alloys With Ni; Yu.A.Priselkov, Yu.A. Sapozhnikov, A.V.Tseplyayeva, V.V.Karelin: The Behavior of a Molecular Metal Beam in the High-frequency Field; I.V.Golubtsov, A.V.Lapitskiy, V.K.Shiryayev: Vapor Pressure of Niobium Dioxide; I.V.Golubtsov, Yu.A.Likhachev, Ye.K.Bakov: Various Constructions of the Scintillation Attachment to the Apparatus of the Type B. Kafedra analiticheskoy khimii (Chair of Analytical Chemistry): I.P.Alimarin, N.R.Borzackova: Niobium^{95} as a Radioactive Tracers; I.P.Alimarin, T.A.Belyavskaya, Ku Bin-yen': Sorption of Zr by Ion Exchangers; A.I.Busev, V.M. Byr'ko: The Use of Complex Pyrazolindithiocarbamates in Radiometry. Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry): Ye.A. Ippolitova, Yu.P.Simanov, L.M.Kovba, G.P. Polunina, I.A. Bereznikova: Uranates of Some Bivalent Metals;

Card 3/4

V.G.Knyagina, O.G., Nenkova: Uranium Compounds With Acids of Low-valence P; V.I. Spitsyn: The Influence of the Radioactive Radiation of Solids on Their Physico-chemical Properties; I.Ye.Mikhaylenko, V.I.Spitsyn: Isotope Exchange in the System $K_2SO_4 - SO_3$ at High Temperature. Kafedra khimicheskoy kinetiki (Chair of Chemical Kinetics): I.V.Berezin, V.L.Antonovskiy, N.F.Kazanskaya: Application of Tritium for the Purpose of Determining the Velocity Constants of the Separation of Organo-hydrogen Compounds. An.N.Nesmeyanov delivered a detailed lecture on the Methodology of Radiochemical Instruction at the chemical departments of universities.

BEREZNIKOVSKIY, I.

A news photographer exposes the aggressors. Sov.foto 17 no.1:42-44 Ja '57. (MIRA 10:7)
(Photography, Journalistic) (Middle Eastern War, 1956)



BEREGNITSKAYA, N. I.

Ca

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Nitrogen requirement of winter wheat in relation to development. N. I. Beregnitskaya. *Compt. rend. acad. sci. U. R. S. S.* 30, 180-8(1941)(in English).—Winter wheat (var. Ukrainka) was sprouted in sand cultures supplied with K + P, N + K, N + P, N + P + K or no minerals followed by growth in Hellriegel's nutrient soln. After 45 days, the plants were transferred to nutrient solns. so that N could be added or withheld during different stages of development. Early supply of N promoted early tillering; heading and ripening, decreased the no. of shoots and increased the grain yield. Plants grown without minerals during the vernalization phase outyielded those receiving P + K during that period. Absence of N after vernalization reduced tillering and yields, particularly in plants deprived of either P or K during vernalization. The no. of spikelets per spike was decreased by withholding N. Conclusion: Nutrition during the vernalization phase has no effect on yield but the critical period of N nutrition is the time when the light phase is passed. N, P and K analysis of the plants showed those with depressed development had higher mineral contents; this fact indicates that yields were not detd. by the amt. of nutrients absorbed. Delayed application of N increased the content of sol. sugars. Nelson McKaig, Jr.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

BEREZNITSKAYA, N.I.

USSR/Cultivated Plants - Grains. M-2

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91637

Author : Bereznitskaya, N.I.

Inst : Kharkov Agricultural Institute.

Title : The Effect of Microelements in Seed Socking on the Growth of Corn.

Orig Pub : Zap. Khar'kovsk, s.-kh. in-ta, 1957, 13 (50), 83-91.

Abstract : The presowing treatment of the corn seeds with salt solutions of microelements (Cu, Zn, Mn, B, Co, Mo) contributed to an increase in seed germination and increased the yield. The most effective method was the treatment of seeds with a salt solution containing 10 mg/l of Cu and solution containing 20 mg/l of Co. Not only Cu and Co, but B and Zn as well produced positive effects in the

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Abs Jour : Ref Zhur - Biol., No 20, 1958, 91637

field experiments. The positive effect of Mo and Mn was evident only in individual cases. A connection between catalase activity and the accumulation of dry mass in plants was established. Ya.V. Peyve.

BEREZNITSKAYA, S.A.; KLIMOVA, M.S.; GRIGOR'YEVA, A.A.; AYZIKOVICH, R.S.; BUTOVSKIY, V.A.; SLOVACHEK, M.A.; ANDRUSHCHUK, A.A.; STARTSEV, I.A.; PROSKO, G.N.

Effect of schedule and feeding on development of infants from one to three years of age. Pediatriia, Moskva no.6:18-25 Nov-Dec 1953. (CIML 25:5)

1. Deceased for Butovskiy. 2. Of the Ukrainian Scientific-Research Institute for the Care of Mother and Child imeni Hero of the Soviet Union Prof. P. M. Buyko (Director -- M. D. Burova, Honored Physician Ukrainian SSR) and the Ukrainian Scientific-Research Institute of Nutrition (Director -- Candidate Medical Sciences A. T. Stovdun).

BEREZNITSKAYA, S.A.; KLIMOVA, M.S.; GRIGOR'YEVA, A.A.; AYZIKOVICH, R.S.; BUTOVSKIY, V.A.; SLOVACHEK, M.A.; STARTSEV, I.A.; PROTSKO, G.M.

Effect of regimen and nutrition on the development of 3 to 7-year old children. Pediatriia no.3:91 My-Je '54. (MLRA 8:1)

1. Iz ukrainskogo instituta okhrany materinstva i detstva i Instituta pitaniya.
(CHILDREN--CARE AND HYGIENE)
(CHILDREN--NUTRITION)

USSR/Medicine FD-2787

Card 1/1 Pub 154-8/19

Author : Klimova, M. S.; Bereznitskaya, S. A.; Ayzikovich, R. S.; and Andrushchuk, A. A.

Title : The effect of regimen and nutrition on the state of the higher nervous activity of children of nursery age

Periodical : Zhur. vys. nerv. deyat. 5, 219-226, Mar-Apr 1955

Abstract : (From a report presented at the 6th Summing-Up Conference of the Institute OKhMD, 12 Jan 1953). Investigated the effect of variations in the nursery regimen and nutrition on the state of the higher nervous activity of children ranging in age from 1 to 3 years, as evidenced by changes in the conditional nutritional motor reflexes. Tables. Nine references, all USSR (4 since 1940).

Institution : Kiev Scientific-Research Institute for the Protection of Maternity and Childhood imeni P. M. Buyko

Submitted : June 20, 1953

BEREZNITSKAYA S. A.

~~Bereznitskaya, S. A.~~, Butskaya, L. K., Kostenko, O. R., Nishchaya, S. YA., Filosofova, T. G., Shekhter, A. B., and Milovanova, L. P.

Study of the effectiveness of active immunization in whooping caugh.

Materialy nauchnykh knoferentsii, Kiev, 1959. 288pp
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

MOROZKIN, N.I.; BITENBINDER, Ye.A.; PERVACHENKO, S.V.; BEREZNITSKAYA, S.A.; LIKHTOROVICH, S.A.; TRET'YAK, M.A.

Seroprophylaxis of influenza in children's institutions and hospitals. Vop. virus. 5 no. 6:682-686 N-D '60. (MIRA 14:4)

1. Institut infektsionnykh bolezney AMN SSSR, Kiyev.
(INFLUENZA)

LUK'YANOVA, Yelena Mikhaylovna[Lukianova, O.M.], kand. med. nauk; VASIL'YEV, O.P.[Vasil'iev, O.P.], translator; BEREZNITSKAYA, S.A. [Bereznits'ka, S.A.], red.; BYKOV, M.M., tekhn. red.

[Prevention and treatment of acute catarrhs of the respiratory tract in children] Zapobihannia ta likuvannia hostrykh katariv dykhal'nykh shliakhiv u ditei. Kyiv, Derzhh. vyd-vo URSR, 1961. 18 p. (MIRA 15:3)
(CATARRH) (CHILDREN—DISEASES)

STOLYAROVA, L.F.; SHCHERBATENKO, V.V.; LUR'YE, T.S.; BEREZNITSKAYA, V.A.

Bread making without fermentation of intermediate products and dough prior to its dividing. Trudy TSNIIKHP no.10:53-62 '62.
(MIRA 18:2)

BEREZNITSKAYA, YE. G.

USSR/Chemistry, Analytical - Organosilicon Compounds 21 Jun 52

"Rapid Microelemental Analysis Method; Simultaneous Determination of Carbon, Hydrogen, and Silicon," V.A. Klimova, M. O. Korshun, Ye. G. Bereznitskaya, Inst of Org Chem, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXXIV, No 6, pp 1175-1178

In pyrolytic decompn of organosilicon compds by rapid combustion, silicon carbide is not formed by all classes of these compds. In rapid decompn, no silicon carbide is formed by compds contg a naphthalene nucleus or alkoxyl groups. Conversely, it is generally formed by tetraalkylsilanes and by compds contg unsatd radicals, although they may burn up completely without carbide phrolysis. Under those conditions, in addn to detn of C and H, Si can be detd simultaneously from the same sample with an accuracy of 1%. Presented by Acad A.N. Nesmeyanov 24 Apr 52.

BEREZNITSKAYA, E. G.
USSR/Chemistry

Card 1/1

Authors : Klimova, V. A., Korshun, M. O., and Bereznitskaya, E. G.

Title : High-speed methods of microelementary analysis. Simultaneous determination of carbon, hydrogen, and phosphorus in organo-phosphorus compounds

Periodical : Dokl. AN SSSR, 96, Ed. 2, 287 - 288, May 1954

Abstract : New methods for microelementary analysis of organo-phosphorus compounds are discussed. Table is included showing the results obtained by such a high speed method and aided by a chromium-oxide-asbestos catalyst. All three elements — carbon, hydrogen, and phosphorus — were simultaneously determined in this experiment. According to obtained results, the analysis for carbon and hydrogen is within the limits of conventional accuracy, the accuracy for phosphorus is somewhat lower but it is hoped that this simultaneous C, H and P-determination method will be improved. Four references; 3 USSR since 1947. Table

Institution : Acad. of Scs. USSR, The N. D. Zelinskiy Institute of Org. Chem

Presented by : Academician A. N. Nesmeyanov, February 24, 1954

USSR

JOURNAL ARTICLE TRANSLATION

Source: Index Aeronauticus, Vol 11, No. 4, p 133, April, 1955

TRANSLATION ISSUED BY R.A.E.

Transl.No. & Country	Title	Author
504 U.S.S.R.	Rapid Methods of Elementary Analysis Simultaneous Determination of Carbon, Hydrogen and Phosphorus in Organo-phosphorus Compounds Dokl.Akad.Nauk, Vol 96, No. 2, pp 287-288, 1954	V.A. KLIMOVA M. O. KORSHUN E.G. BEREZNITSKAYA

KLIMOVA, V.A.; BEREZNITSKAYA, Ye.G.; MUKHINA, G.K.

Determination of elements in tungsten sulfide catalysts. Izv. AN SSSR Otd.khim.nauk no.8:1520-1521 Ag '60. (MIRA 15:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Catalysts, Tungsten)

Bereznitskiy B.K.

28-5-20/30

AUTHOR: Bereznitskiy, B.P., and Khalileyev, K.A., Engineers

TITLE: On the Normalization of Equipment and Its Elements (O normalizatsii izdeliy i ikh elementov)

PERIODICAL: Standartizatsiya, 1957, # 5, p 78-79 (USSR)

ABSTRACT: The authors of the two letters published under this title criticize the article "Normalization of Equipment and Its Elements" ("Normalizatsiya izdeliy i ikh elementov") by M.A. Drozdovskiy, "Standartizatsiya" # 2, 1957.

Both authors say that machines can be normalized without preliminary normalization of parts.

Since Drozdovskiy cited examples from the field of normalization of radio and electronics, it is pointed out that the technical documents for just this industry branch (1st part of "МН СЧХ") indicate that by "normalized equipment" is meant series-produced equipment, and that technical working documents have to be made for such equipment, including the working drawings for parts, i.e. the parts which are also normalized. It is wrong that the equipment mentioned by Drozdovskiy was normalized without normalizing the parts. Such norms or standards can exist

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without a direct connection with work drawings, and there are hundreds of such standards. An obligatory normalization of parts, as suggested by Drozdovskiy, would require the re-working and re-numbering of drawings, and would create confusion.

AVAILABLE: Library of Congress

Card 2/2

IVANOV, N.I.; SHTEDING, A.E.; Prinimali uchastiye: ZYKOV, V.M., inzh.; BEREZNITSKIY, I.I., inzh.; NORENKO, N.A., inzh.; SOCHINSKIY, V.P., otv. red.; NURMIUKHOMEDOVA, V.F., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.

[Reorganization of coal mines] Rekonstruktsiia ugol'nykh shakht. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Pt.1. [Practices of foreign countries in the reorganization of coal mines] Zarubezhnyi opyt rekonstruktsii shakht. 1961. 222 p. (MIRA 15:1)

(Coal mines and mining)

BEREZNITSKIY, I. Ye.

Bereznitskiy, I. Ye.

"The Effect of Certain Synthetic Oxyethylene Derivatives of Phenol Mixed with Antiseptics on Short Flax Fibers." Min Higher Education USSR. Leningrad Textile Inst imeni S. M. Kirov. Chair of Organic, Physical, and Colloid Chemistry. Leningrad, 1955. (Dissertations for the Degree of Candidate in Technical Sciences).

SO: Knizhnaya Letopis', No 27, 2 July 1955

RIVKIN, V.L.; BEREZNITSKIY, S.A.

Treatment of anal neuralgia (proctalgia). Akt. vop. prokt. no.2: 67-71 '63 (MIRA 18:1)

CHEN, N.G.; KOPTEV, G.P.; BEREZNITSKIY, S.G.; SORKIN, M.M.; BOYARSKAYA, R.R.

Preventing corrosion and scale formation in primary gas coolers. Koks i khim. no.9:49-53 '62. (MIRA 16:10)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz (for Chen).
2. Bagleyskiy koksokhimicheskiy zavod (for Koptev, Bereznitskiy, Sorkin, Boyarskaya).

(Cooling towers)
(Corrosion and anticorrosives)

BEREZNITSKIY, V.P.

BEREZNITSKIY, V.P., insh.; KHALILBEYEV, K.A., insh.

Standardization of manufactured objects and their parts.
Standartizatsiia no.5:78-79 S-O '57. (MIRA 10:11)
(Standards, Engineering)

BEREZNITSKIY, V. S. and VDOVETS, P. Z.

"Dimensions and Base Diagrams of Electron Tubes," (Gabarity i tsokolevka elektronnykh lamp), "Sovetskoye radio," 1949, 23 pp of text and 354 sheets of sketches.

GUSEV, Vladimir Petrovich. Prinimali uchastiye: SAKHAROV, M.A.; OBICHKIN, Yu.G.; FOMIN, A.V.; SEMIKOV, G.A.; NAZAROV, A.S.; ANDREYEVSKIY, M.N., retsenzent; KUNYAVSKIY, G.M., retsenzent; BLINNIKOV, I.V., retsenzent; BERGZNITSKIY, V.S., red.; SUKHANOV, Yu.I., red.; SVESHNIKOV, A.A., tekhn. red.

[Technology of the manufacture of radio electronic equipment] Tekhnologiia proizvodstva radioelektronnoi apparatury. Moskva, Izd-vo "Sovetskoe radio," 1961. 387 p. (MIRA 14:9)
(Radio—Equipment and supplies)

BEREZNOI, N.

"Development of the manufacture of machinery in the USSR. Tr. from the Russian." P. 360. (PRZEGLAD TECHNICZNY. Vol. 75, No. 10, Oct. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4. April 1955. Uncl.

Bereznoy, N

Planirovaniye Ispol'Zovaniya Proizvodstvennykh Moshchnostey V Promyshlennosti (Planning the use of productive capacity in industry) Moskva, Gosplanizdat, 1958.

65 P. Tables (V Pomoshch' Ekonomistu I Planov'ku)

SANKIN, D.I., kand. ekon. nauk; SEMINOY, S.I., kand. ekon. nauk; BEREZNOY, N.I., kand. ekon. nauk; ZHDANOV, A.I., kand. ekon. nauk; GORCHAKOV, A.A., inzh.; ZAKHAROV, V.V., inzh.; YUNOVICH, I.M., inzh.; RYVKIN, A.S., inzh.; KOVRIGIN, V.V., ekonomist; DIDENKO, S.I., kand. ekon. nauk; SANDOMIRSKIY, A.T., ekonomist; GONCHARENKO, B.L., kand. ekon. nauk; KOTOV, V.F., inzh.; EYDEL'MAN, B.I., red.

[Handbook for the economist and planner in an industrial enterprise] Spravochnik ekonomista i planovika promyshlennogo predpriiatiia. Moskva, Ekonomika, 1964. 698 p. (MIRA 17:6)

BEREZNOY, N. I.

Bereznoy, N. I. "Introduction of mean-progressive norms in the ship building industry," Sudostroyeniye, 1948, No. 6, pp. 1-4

SO: U-3264, 10 April 53 (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

BERENOY, N.I.

[Planning the use of production potentials in industry] Planirovanie ispol'zovaniia proizvodstvennykh moshchnostei v promyshlennosti. Moskva, Gosplanizdat, 1958. 66 p. (Efficiency, Industrial) (MIRA 12:6)

SEMIN, Sergey Il'ich; MAKSIMOV, I.S., red.; BEREZNOY, N.I., red.; PONOMAREVA, A.A., tekhn.red.

[Efficiency of specialization and cooperation in U.S.S.R. industry] Effektivnost' spetsializatsii i kooperirovaniia v promyshlennosti SSSR. Moskva, Gosplanizdat, 1960. 172 p. (MIRA 14:3)

(Industrial organization)

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BERENYAK, M.M.

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Selective ore extraction from quarries and its effect on the height of benching. Trudy Inst. gor. dela AN Kazakh. SSR 1:34-43 '56.
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BEREZNYAK, M.M., dotsent; KULIBABA, A.N., dotsent.

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1. Kemerovskiy gornyy institut.
(Kuznetsk Basin—Strip mining)

BERKEZNIAK, M. M., kand. tekhn. nauk; VASIL'YEV, Ye. I., kand. tekhn. nauk

Techniques of mining thin coal layers with an auger. Izv. vys. ucheb. zav.; gor. zhur. no.9:21-28 '61. (MIRA 15:10)

1. Kemerovskiy gornyy institut. Rekomendovana kafedroy otkrytykh rabot.

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LOKHANOV, B.N.; KOVALENKO, V.A.; BETANELI, K.P.; VESKOV, M.I.; DRANNIKOV, S.A.; IVANOV, K.I.; BEREZNYAK, M.N.; VASIL'YEV, Ye.I.; TSETSUL'NIKOV, V.R.

Trial operation of cutter loaders in mining with the room-and-pillar method. Ugol' 37 no.8:33-35 Ag '62. (MIRA 15:9)

1. Krasnogorskiy razrez (for Lokhanov, Kovalenko). 2. Institut gornogo dela im. A.A.Skochinskogo (for Betaneli, Veskov, Drannikov, Ivanov). 3. Kemerovskiy gornyy institut (for Bereznyak, Vasil'yev, TSetsul'nikov).
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GRAFOV, L.Ye., gornyy inzh.; GORBUSHIN, V.I., V.I.; ZARANKIN, N.Ye.; DUDNIK,G.N.; BARONSKIY, I.V.; KOSTYUKOVSKIY, V.Ya.[deceased]; LINDENAU, N.I.; BIRYUKOV, R.A.; LISKOVETS, A.R.; MURAV'YEV, V.P.; FESUN, V.A.; BERDYUGIN, V.A.; BEREZNYAK, M.M.; VASIL'YEV, Ye.I.; KOLLODIY, K.K.; IL'CHENKO, D.F.; YALEVSKIY, D.B.; GERASIMOV, V.P.; IVANOV, V.V.; GAVRILOV, G.V.; SUROVA, V.A., red. izd-va; OSVAL'D, E.Ya., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.

[Development and improvement in the technology of coal production] Razvitie i sovershenstvovanie tekhniki dobychi uglia. Moskva, Gosgortekhizdat, 1962. 359 p. (MIRA 16:2)
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Improve boring and blasting operations in coal pits of the southern Kuznetsk Basin. Ugol' 38 no.9:34-37 S '63. (MIRA 16:11)

1. Kemerovskiy gornyy institut.

BEREZNYAK, M.M., kand. tekhn. nauk; VASIL'YEV, Ye.I., kand. tekhn. nauk; KALININ, A.V., inzh.; PROTASOV, N.M., inzh.

Using ETsVM electronic digital computers in the selection of transportation for strip mines. Izv.vys.ucheb.zav.;gor.zhur. 7 no.6:83-87 '64. (MIRA 17:12)

1. Kemerovskiy gornyy institut. Rekomendovana kafedroy otkrytykh gornykh rabot.

BEREZNYAK, M.M., kand. tekhn. nauk; VASIL'YEV, Ye.I., kand. tekhn. nauk; KALININ, A.V., gornyy inzh.

Determining the volume of mining operations and the current overburden stripping ratio in mining a series of flat seams in the southern Kuznetsk Basin. Ugol' 39 no.7:22-26 Jl '64. (MIRA 17:10)

1. Kemerovskiy gornyy institut.

BEREZNYAK, M.M., kand. tekhn. nauk; VASIL'YEV, Ye.I., kand. tekhn. nauk; KALININ, A.V., inzh.; KOLESNIKOV, V.F., inzh.

Use of electronic computers in planning open pit mines. Izv. vys. ucheb. zav.; gor. zhur. 8 no.2:39-47 '65. (MIRA 18:5)

1. Kemerovskiy gornyy institut.

BEREZNYAK, M.M., kand. tekhn. nauk; VASIL'YEV, Ye.I., kand. tekhn. nauk; KALININ, A.V., gornyy inzh.; CHERNORUTSKIY, Ye.F., gornyy inzh.; KOZINTSEV, I.P.

Using combined truck and railroad haulage in open pit mines of the southern Kuznetsk Basin. Ugol' 40 no.4:46-48 Ap '65. (MIRA 18:5)

1. Kemerovskiy gornyy institut (for Bereznyak, Vasil'yev, Kalinin). 2. Sibgiproshakht (for Chernorutskiy). 3. Tomusinskiy kar'yer No.3-4 (for Kozintsev).

BEREZNYAK, N. G.

USSR/Physics - Crystallography of micro-stresses FD-608

Card 1/1 : Pub. 153-20/22

Author : B. Ya. Pine and N. G. Bereznyak

Title : Determination of microstresses in plastically deformed polycrystalline bodies

Periodical : Zhur. tekh. fiz. 24, 329-336, Feb 1954

Abstract : Apply the method of harmonic analysis to the determination of the structural changes that occur during plastic deformations of polycrystalline specimens of W and Ta (Warren and Averbach, J. Appl. Phys., 21,595 (1950)). Found that the diffusion of lines of the x-ray pattern after deformation is due to the effect of microstructures. 6 references, including 4 foreign.

Institution :

Submitted : July 3, 1953

BEREZNYAK, N. G.

USSR/Physics - Helium isotopes FD-991

Card 1/1 Pub. 146 - 15/20

Author : Yesel'son, B. N., and Bereznyak, N. G.

Title : Dew points of mixtures of helium isotopes

Periodical : Zhur. eksp. i teor. fiz., 27, No 5 (11), 648, 649, Nov 1954

Abstract : The authors tabulate the dependence of the pressure of initial condensation upon temperature for mixtures with various contents of helium-3, and graphs the dependence of the vapor tension of mixtures of helium isotopes upon the state of the gaseous phase for various temperatures. Such tabulation and graphing are necessary in order for the authors to construct the vapor-liquid diagrams for the system He^3 He^4. An extension of an earlier work (B. N. Yesel'son, ibid., 26, 744, 1954). A detailed report will be published soon. The authors thank professor N. Ye. Alekseyevskiy for analyzing the mixtures for the content of the light isotope and professor B. G. Lazarev for his interest.

Institution : Physicotechnical Institute, Academy of Sciences Ukrainian SSR

Submitted : July 13, 1954

BEREZNYAK, N. G.

USSR/Physics - Surface tension

Card 1/1 : Pub. 22 - 15/49

Authors : Esel'son, B. N., and Bereznyak, N. G.

Title : Surface tension of helium isotope solutions

Periodical : Dok. AN SSSR 98/4, 569-571, Oct. 1, 1954

Abstract : An experiment was conducted with solutions of helium isotopes to determine their surface tensions. The method and instrument set-up are outlined. Six references (1921-1944). Diagram; graphs.

Institution : Physico-Technical Institute of the Acad. of Scs. of the Ukr. SSR

Presented by : Academician Lindau, L. D., April 22, 1954

USSR/ Physics - Surface tension

Card 1/1 Pub. 22 - 7/40

Authors : Esel'son, B.N, and Bereznyak, N.G.

Title : Surface tension of a light helium isotope

Periodical : Dok. AN SSSR 99/3, 365-367, Nov 21, 1954

Abstract : The experimental determination of the surface tension of a light helium isotope(He^3) is described. The following formula was used for this determination: $2\alpha\left(\frac{1}{b_1} - \frac{1}{b_2}\right) = H_g(\rho_e - \rho_v)$ into which the experimental data obtained was substituted. Symbols are explained. Five references: 1-USSR (1921-1954). Diagram, table; graph.

Institution: Physico-Technical Institute of the Acad. of Scs. of the UkrSSR.

Presented by: Academician L.D. Lindau, July 12, 1954

BEREZNYAK, N. G.

USSR/Physical Chemistry. Thermodynamics, Thermochemistry, B-8
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14646

Author : B. N. Esel'son, N. G. Bereznyak
Inst : Academy of Sciences of USSR
Title : Liquid-Vapor State Graph of System of Helium Isotopes (He^3-He^4)

Orig Pub: Dokl. AN SSSR, 1955, 105, No 3, 454-457

Abstract: The vapor pressure p of helium isotope solutions with various contents of He^3 in the liquid was measured. The method (RZhKhim, 1956, 28413, 50161) is based on the determination of the difference Δp_4 between the vapor pressures of the solution and pure He^4. The equilibrium between the liquid and the vapor was provided for by stirring the liquid and it was checked by the absence of any dependence of Δp on time and by the absence of hysteresis. The dependence of p on the temperature was determined for 20 solutions with He^3 contents from 0.4 to 90.8

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USSR/Physical Chemistry. Thermodynamics, Thermochemistry, B-8
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14646

Abstract: percent, for mixtures containing up to 30 percent of He^3 within the range from 1.35 to 3.2°K, and for richer mixtures within the range from 1.35 to 2.7°K (the results are shown graphically); also the temperature dependence of the dew point was determined for eight mixtures with He^3 contents from 1.9 to 82.4 percent. Graphs of state at seven tempertures from 1.4 to 2.6°K (intervals of 0.2°) were plotted based on the obtained data; their shape is the same as that of the majority of ordinary liquid mixtures (cigar shaped graphs).

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BEREZNYAK, N.G.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1978
AUTHOR BEREZNYAK, N.G., ESEL'SON, B.N.
TITLE The Energy Spectrum of He^3 Admixtures dissolved in He II.
PERIODICAL Dokl.Akad.Nauk 111, fasc.2, 322-324 (1956)
Issued: 1 / 1957

An experimental investigation of the temperature dependence of the contribution $\varrho_{n\,ad}$ of the admixtures to the density of the normal He II component permits a univocal determination of the shape of the energy spectrum. For this purpose, the authors measured the density of the normal component of the solution of He^3 in He^4 with a concentration of x = 3,0% He^3. The temperature dependence of the moment of inertia of a stack of light parallel disks steeped into the helium-isotope solution was measured. The stack of disks was firmly connected to the little pail surrounding it. The latter was suspended on a wire of phosphorous bronze so that it could perform rotating oscillations round an axis which was vertical to the plane of the disk. The modification of the moment of inertia of the device was determined from the temperaturedependence of the period of the oscillations of the system in the liquid. The connection between the oscillation period of the system and the liquid participating in the motion of the device can, as usual, be determined by solving the corresponding hydrodynamic problem. It must, however, be considered that the liquid is drawn off not only by the disks but also by the outer surfaces of the pail. When solving the hydrodynamic problem the peculiarities of the experimental device must be taken into account by imposing certain corresponding boundary conditions. In this way two equations

are obtained of which one permits determining the penetration depth δ and the other the determination of the density of the normal component. Both equations are explicitly given.

By means of the device described the temperature dependence of the density of the normal component of pure He^4 and of a solution of helium isotopes with a content of 3,0% He^3 was determined. The results are shown in form of a diagram and are indicative of the fact that the normal component of the solution has a considerably greater density than He^4. This follows also from the theory by I.JK.POMERANČUK. At 1,5°, $\varrho_n/\varrho_\lambda$ is by 50% greater in the case of the solution than with He^4. The spectrum of elementary excitations which corresponds to the particles of the admixture is characterized by the value $p_0 = 0$. (Here p_0 apparently denotes the pulse in the case of a lacking admixture). From the experimentally determined values of $(\varrho_n/\varrho_\lambda)_s$ for the solution and $(\varrho_n/\varrho_\lambda)_o$ for pure He^4 it is possible to determine the effective mass of the admixture in the solution. Such a computation furnishes the value $\mu = 2,5\ m_3$, where m_3 denotes the mass of the He^3-atom. At present experiments for the determination of $\varrho_n/\varrho_\lambda$ in concentrated mixtures are being carried out.

INSTITUTION: Physical-Technical Institute of the Academy of Science in the Ukrainian SSR.

BEREZNYAK, N.G.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1983
AUTHOR ESEL'SON,B.N., BEREZNYAK,N.G., KAGANOV,M.I.
TITLE The λ -Temperatures of the Solutions of Helium-Isotopes.
PERIODICAL Dokl.Akad.Nauk 111, fasc.3, 568-570 (1956)
Issued: 1 / 1957

In connection with the determination of data which are necessary for the construction of the state diagram liquid-vapor of the system He^3-He^4, another possibility of determining the dependence $T_\lambda(x_{fl})$ was discovered. (Here x_{fl} denotes the concentration of the liquid). What is concerned here is the break of the curve: viscosity of vapor (vapor pressure) - temperature, which must occur at the λ -point of the solution. Whereas in the curve for the dependence of vapor pressure on temperature in the case of pure He^4 the λ -point was characterized by a break in the derivative dP_4^o/dT, the derivatives dP_3/dT, dP_4/dT and dP/dT are subjected to discontinuities in the λ -point on the curves for the dependence of partial pressure and the total pressure of the solutions of the helium isotopes. This follows from general thermodynamic deliberations. Next, an expression for the discontinuity of the derivation of concentration in the gaseous phase is derived. The experimental determination of the break in the curve of the dependence of the vapor pressure of the solution of isotopes on temperature makes it possible to determine $T_\lambda(x_{fl})$.

In general the determination of such a break on the curve P(T) is difficult, but it is considerably facilitated by the study of the temperature dependence of the difference Δ P of the vapor pressure of the solutions and of pure He^4. In the case of the curve P-T the relatively small discontinuity of this quantity at the λ-point will be only little noticeable. However, in the case of the curve Δ P-T the value of $d/dT(\Delta P)$ diminishes considerably and the discontinuity of this quantity at the λ-point remains the same. A diagram illustrates the dependence P-T for some solutions. In the case of all these curves which were obtained by the differential method of measuring vapor pressure a discontinuity is observed which must currespond to the temperature of the phase transition. These temperatures and the corresponding concentrations of the solutions are shown together in a table. These data deviate considerably from the results obtained by other works. However, the data found here agree well with those values of T_λ which were obtained recently in connection with the study of various properties of the solutions of He^3 in He^4 within the domain of small concentrations. The value of (dT_λ/dx_{fl}) at $x_{fl} = 0$ can be obtained by using the data concerning the density of the normal component of the solutions of helium isotopes. The here computed value of (dT_λ/dx_{fl}) at $x_{fl} = 0$ agrees well with the values -1,5 ∇/mol which were found elsewhere.

INSTITUTION: Physical-Technical Institute of the Academy of Soience in the Ukrainian SSR.

BEREZNYAK, N. G. Cand Phys-Math Sci -- (diss) "Study of the effect of He^3 upon the density of the normal component He II." Kiev, 1957. 11 pp 20 cm (Acad Sci UkSSR. Inst of Physics), 100 copies. (KL, 24-57, 115)

24.5600

33155
S/120/61/000/006/026/041
E032/E114

AUTHORS: Yesel'son, B.N., Shvets, A.D., and Bereznyak, N.G.

TITLE: An He^3 apparatus for the production of temperatures down to 0.3 °K

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 123-124

TEXT: The apparatus is illustrated in the figure. About 2 litres of gaseous He^3 supplied by the cylinders 1 are condensed into the copper container 2 which is located inside the vacuum envelope 3 and is maintained at the temperature of the outer bath (1.3 °K). Since at this temperature the vapour pressure of He^3 is greater than the pressure at which diffusion pumps begin to operate, there is an additional He^4 bath 4 whose temperature may be reduced to 1 °K by pumping the vapour through a diaphragm by the ДРН-50 (DRN-50) pump 5. The valve 6 is used to fill this bath with liquid He^4 from a dewar. Under these conditions the vapour given off by liquid He^3 may be pumped by the mercury diffusion pump (Leybold) 7 which has a pumping speed of about 15 litres/sec. Mercury vapour is excluded by liquid nitrogen traps. The He^3 vapour pumped by 7 is

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continuously removed by the liquid-hydrogen cooled charcoal pump 8 containing about 50g of activated charcoal. In this way the He^3 gas can be recovered and returned into the reservoirs 1. The use of these absorption pumps greatly simplifies the design of cryostats containing He^3. It was found convenient to use a solution of He^3 in He^4 instead of pure He^4 as the cooling medium. To do this, a mixture containing 7.4% of He^3 was condensed through the tube 9 into the glass reservoir 10 which was sealed into the He^3 container through a Kovar seal. Since this cryostat was used to study the properties of He^3 + He^4 mixtures, the reservoir 10 contained the glass vessel 11 which was filled with the mixture under investigation through the tube 12. It was found that the minimum temperature was 0.4 °K and could be maintained for about 6 hours, which is much longer than the period obtained with He^4 as the cooling liquid. The lower temperature of 0.3 °K was obtained by pumping the vapour given off by liquid He^3 placed in a very small glass dewar connected to the pumping system described above. The latter temperature could be maintained for over 7 hours. Temperatures between

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1 and 0.4 °K, could be obtained by adjusting the pumping speed of the diffusion pump with the aid of the valve 13. In all the experiments the temperature was determined by measuring the He^3 vapour pressure with a McLeod gauge (Ref.14: S.G. Sydoriak, T.R. Roberts, Phys.Rev., v.106, 1957, 175). In one of the experiments the He^3 vapour was pumped by the absorption pump only, the pump being cooled by liquid helium (4.2 °K). In spite of the long and narrow connecting pipe, a temperature of 0.4 °K was obtained. This indicates that He^3 cryostats can be considerably simplified by using absorption pumps only. Acknowledgments are expressed to B.G. Lazarev for his advice.
There are 1 figure and 14 references: 6 Soviet-bloc and 8 non-Soviet-bloc. The four most recent English language references read as follows:
Ref. 8: G. Seidel, P.H. Keesom,
Rev. Scient. Instrum., v.29, 1958, 606.
Ref.10: H.A. Reich, R.L. Garwin,
Rev. Scient. Instrum., v.30, 1959, 7.

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An He^3 apparatus for the production... S/120/61/000/006/026/041
E032/E114

Ref.13: C.J.N. v. d. Meydenberg, K.W. Taconis, 7th Intern. Conf. on Low Temp. Phys., Toronto, Programme, 1960.
Ref.14: as in text above.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR
(Physicotechnical Institute, AS Ukr.SSR)

SUBMITTED: January 25, 1961

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43383
S/056/62/043/005/056/058
B125/B104

11,3120

AUTHORS: Bereznyak, N. G., Bogoyavlenskiy, I. V., Yesel'son, B. N.

TITLE: The curves representing the onset of solidification of helium isotope solutions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 5(11), 1962, 1981-1982

TEXT: The method of thermal analysis was used to establish a correlation between the solidification pressure and the composition of the liquid phase in order to draw the diagram for the equilibrium between the solid and the liquid phase of solutions of He^3 in He^4. The temperature and pressure at which the solutions of He^3 in He^4 begin to solidify (10.3; 24.1; 53.0 and 76.4%)He^3) can be determined from the salient points of the curve representing the time dependence on temperature and pressure. A resistance thermometer was used to measure the temperature of the calorimeter, whilst the pressure inside the latter was determined from the elastic deformation of the calorimeter wall, using a strain gauge. Between 1.5 and 4.2°K, the

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